REMARKS

Upon entry of this amendment, claims 2-13 are all the claims pending in the application. Claim 1 has been canceled by this amendment, and claims 12-13 have been added as new claims. No new matter has been added.

Applicants note that a number of editorial amendments have been made to the specification for grammatical and general readability purposes. No new matter has been added.

I. Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-5 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Yando (US 3,727,719) in view of Ward (US 4,657,108).

Initially, Applicants note that claim 4 has been rewritten in independent form so as to include all of the features of base claim 1, and claim 1 has been canceled.

In this regard, Applicants note that claim 4 recites that the plate member of the variable mechanism is displaced, more easily than a diaphragm of the speaker unit, in accordance with at least the pressure variation of the direct current component, the pressure variation occurring in the sealed chamber, in the direction in which the volume of the sealed chamber increases or decreases. Applicants respectfully submit that Yando and Ward do not disclose or suggest the above-noted feature recited in claim 4.

With respect to Yando, Applicants note that this reference discloses a loudspeaker enclosure having a chamber 210, a loudspeaker 215 disposed in an opening 212 of the chamber 210, a rigid plate (free piston) 225 disposed within an opening 224 of the chamber 210, and an elastic membrane 226 which suspends the rigid plate 225 within the opening 224 (see Fig. 6 and

col. 7, lines 45-53). As explained in Yando, the elastic membrane 226 permits the rigid plate (free piston) 225 to move freely about its equilibrium plane and acts as a seal to prevent the passage of air into and out of the chamber 210 (see col. 7, lines 53-57).

Regarding the rigid plate (free piston) 225, Yando discloses that the mass and cross sectional area of the rigid plate (free piston) 225 is adjusted to be substantially equal to that of a rigid plate (free piston) 213 in order to ensure that the rigid plates (free pistons) 225 and 213 will resonate with the same elastic stiffness of the dynamical system at one and the same predetermined frequency (see Fig. 6 and col. 7, lines 57-62). Further, Applicants note that Yando discloses that the mass of the rigid plate (free piston) is proportioned so as to cause the rigid plate (free piston) to resonate with the effective elastic stiffness of the dynamical system at a specified frequency within a predetermined low frequency range, and that the elastic membrane contributes to the stiffness of the dynamical system (see col. 3, lines 34-46).

As noted above, claim 4 recites that recites that the plate member of the variable mechanism is displaced, more easily than a diaphragm of the speaker unit, in accordance with at least the pressure variation of the direct current component.

With respect to the above-noted feature, the Examiner has taken the position in the Office Action that the rigid plate (free piston) 225 of Yando corresponds to the claimed "plate member of the variable mechanism". In addition, Applicants note that the Examiner has taken the position that the disclosure in Yando which indicates that the membrane and the mass of the rigid plate affect the elastic stiffness of the system corresponds to the claimed relationship between the displacement of the plate member of the variable mechanism and the diaphragm of a speaker

unit.

In particular, the Examiner has stated that "Yando suggests that the compliance of the membrane support and mass of the plate should be proportioned for the desired stiffness of the system, corresponding to 'displaced more easily'" (see Office Action at page 4). Applicants respectfully disagree with the Examiner's position for the following reasons.

First, Applicants note that while Yando may disclose that the elastic membrane and the mass of the rigid plate (free piston) affect the stiffness of the system, Applicants point out to the Examiner that claim 4 involves a relationship between the displacement of the plate member of the variable mechanism and a displacement of a diaphragm of the speaker unit. In particular, as set forth above, claim 4 recites that the plate member of the variable mechanism is displaced, more easily than a diaphragm of the speaker unit, in accordance with at least the pressure variation of the direct current component. In this regard, Applicants respectfully submit that there is no disclosure in Yando drawn to the displacement of the rigid plate (free piston) 225 as compared to a displacement of a diaphragm of the speaker unit.

Second, to the extent that the Examiner is taking the position that the above-noted disclosure in Yando (drawn to the elastic stiffness of the dynamical system) somehow corresponds to the claimed feature of the plate member of the variable mechanism being displaced more easily than a diaphragm of the speaker unit, Applicants note that because there is no disclosure in Yando drawn to the displacement of the rigid plate (free piston) 225 as compared to a diaphragm of the speaker unit, Applicants presume that the Examiner is taking the position that such a feature is inherent to Yando.

If the Examiner is taking such a position, Applicants note that the MPEP explains that when "relying on a theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art" See MPEP § 2112 (IV)(emphasis in original).

In this regard, Applicants respectfully submit that the mere indication in Yando that the elastic membrane and the mass of the rigid plate (free piston) affect the stiffness of the system does not mean that "the plate member of the variable mechanism is displaced, more easily than a diaphragm of the speaker unit, in accordance with at least the pressure variation of the direct current component", as recited in claim 4. If the Examiner disagrees, Applicants kindly request that the Examiner provide a basis in fact and/or technical reasoning to support such a position so that Applicants can make an informed decision with regard to appeal.

In view of the foregoing, Applicants respectfully submit that Yando does not disclose, suggest or otherwise render obvious the above-noted feature recited in claim 4 which indicates that the plate member of the variable mechanism is displaced, more easily than a diaphragm of the speaker unit, in accordance with at least the pressure variation of the direct current component, the pressure variation occurring in the sealed chamber, in the direction in which the volume of the sealed chamber increases or decreases. Further, Applicants respectfully submit that Ward does not cure this deficiency of Yando.

Accordingly, Applicants submit that claim 4 is patentable over the cited prior art, an indication of which is kindly requested. Claims 2, 3 and 5 depend from claim 4 and are therefore

considered patentable at least by virtue of their dependency.

II. Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 6-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

By this amendment, Applicants note that claim 6 has been rewritten in independent form so as to include all of the features of base claim 1, thereby placing this claim in condition for allowance. Claims 7-11 depend from claim 6 and are therefore considered patentable at least by virtue of their dependency.

III. New Claims

Claims 12 and 13 have been added as new claims. Claims 12 and 13 depend from claim 6 and are therefore considered patentable at least by virtue of their dependency.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

Shuji SAIKI et al.

By: 

Kenneth W. Fields
Registration No. 52,430
Attorney for Applicants

KWF/krg
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
August 11, 2008